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CASE NO. 13 CIV. 1196 HSG (NC)

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DECLARATION OF BRUCE A. STROMBOM, PH.D.

I. QUALIFICATIONS AND ASSIGNMENT

A. Qualifications

- My name is Bruce A. Strombom. I am a Managing Principal of Analysis Group, Inc., a national economic, financial and strategy consulting firm. Analysis Group has ten offices throughout North America and employs over 500 professionals, most with advanced degrees in economics, management, statistics or law.
- 2. For the past 22 years I have been employed by Analysis Group as an economist and served as a consulting and testifying expert in public policy matters and commercial litigation. In my work in commercial litigation, I have addressed topics related to class certification, liability, loss causation and damages on behalf of both plaintiffs and defendants. I have qualified as an expert and provided testimony on these topics at trial in numerous federal and state courts and in arbitrations. Prior to joining Analysis Group, I was Executive Vice President of Business Valuation for a middle-market merger and acquisition firm serving privately held businesses. In that capacity, I directed an organization of 75 market research and financial analysts that performed approximately 500 business valuations per year and provided guidance to business owners in a range of industries on strategies to enhance the values of their companies. Earlier, I was a Consulting Manager in the Financial Advisory Services group of the public accounting firm of Price Waterhouse and Senior Financial Analyst with Tribune Newspapers West.

3. I hold a B.A. in economics from San Jose State University and a Ph.D. in economics from the University of California, Irvine. My academic training focused on the areas of applied microeconomics, finance and quantitative and statistical analysis. A copy of my curriculum vitae is attached as **Appendix A**.

B. Assignment

- 4. I have been asked by counsel for the defendant, Bimbo Bakeries, USA Inc. ("Bimbo," or "Defendant") to provide expert testimony regarding various economic issues related to class certification in the above-captioned case. In particular, I have been asked to review and evaluate from an economic perspective the Declaration of Donald M. May ("May Declaration") and Dr. May's deposition testimony.
- 5. Analysis Group is compensated at the rate of \$660 per hour for my work on this matter. They are also compensated for the time of other Analysis Group employees working at my direction and supervision at those employees' regular hourly rates.
 Analysis Group's and my compensation are not affected by the nature of my opinions or the outcome of this matter.
- 6. The materials I relied upon in conducting my analysis and forming my opinions are listed in this declaration and/or in Appendix B. My work in this matter is ongoing. My analysis and conclusions are based on the information available to me as of the date this declaration was submitted. Should additional information become available to me as this matter proceeds, I will update my analysis and refine my opinions as appropriate.

II. SUMMARY OF OPINIONS

7. The following is a summary of my principal conclusions. I provide this summary for the reader's convenience; it does not reflect my conclusions in their entirety.

- A. As a general matter, given the individualized nature of prices that consumers paid for Bimbo's products, any calculations of restitution to individual consumers proposed by plaintiffs will require individual inquiry. Plaintiffs have provided no evidence on what any individual consumer paid, or any method for calculating restitution for each putative class member.
- B. Dr. May's "Purchase Price Restitution" is not a measure of economic harm to consumers resulting from the challenged conduct. Because it does not account for any value a consumer received from the Challenged Products, it materially overstates alleged economic damages, if any, to putative class members.
- C. Dr. May has failed to demonstrate that the hedonic regressions he proposes could be successfully and appropriately implemented in this case. Dr. May had not examined any relevant data as of the time of his deposition, and failed to provide detailed description of the data he intends to use. Without adequate data, Dr. May's approach will not provide usable results.
- D. Dr. May does not identify the comparable products that are required to implement his hedonic regressions. Lack of either sufficient numbers of comparable products, adequate variation in product prices, and data about the attributes of comparable products may preclude regression estimates that are meaningful or statistically precise.
- E. Dr. May has provided no evidence that he can accurately identify which sales transactions involve the Challenged Claims and which do not. It may be impossible to accurately categorize product purchase transactions into those that

- involve the Challenged Claims and those that do not. The associated measurement error could render Dr. May's regression estimates unreliable.
- F. Dr. May does not identify all factors potentially affecting the prices and/or volume sold of the products he intends to use in his proposed regressions, and he has not established the availability of data necessary to implement those regressions. Omission of relevant factors can bias his regression estimates.

 Furthermore, Dr. May has not clearly identified the appropriate counterfactuals he will use to calculate damages that are consistent with the Plaintiffs' theory of damages.
- G. Dr. May has failed to demonstrate that his incremental sales regression approach can be implemented in this case. This approach is not "functionally equivalent" to the hedonic regression approach, and Dr. May has not shown that it measures the difference in value between what class members paid and what they received.
- H. There is no economic or other basis for Dr. May's claim that any price effects measured by his regressions "would not vary from one consumer to the next."
 There are many plausible reasons to expect that price effects, if any, due to the Challenged Claims vary from one consumer to the next.
- I. Contrary to Dr. May's assertion, the weighted average price of each Challenged Product is not common to members of the class. Consequently, the use of weighted average prices to determine damages would over-compensate some consumers and under-compensate others.
- J. Dr. May has proposed no method of allocating total damages to individual Class
 Members under any of his methodologies.

K. Dr. May has failed to provide even the most rudimentary empirical analysis to support the fundamental notion of the Plaintiffs' damages theory – that the allegedly false claims are associated with any price premium. The academic studies he cites also provide no support because they do not test the claims at issue in this litigation.

III. BACKGROUND

A. Named Plaintiffs

8. Alex Ang ("Mr. Ang" or "Plaintiff") is a resident of California and has resided in the city of Oakland, California since 2013. Prior to this litigation, Mr. Ang has been the named plaintiff on one other class action lawsuit brought by his same counsel against WhiteWave Food Company. Mr. Ang recalls purchasing Sara Lee Classic 100% Whole Wheat Bread, Bimbo Original Toasted Bread, Bimbo Double Fiber Toasted Bread, and Thomas' Bagel Thins among other Bimbo products. Mr. Ang testified that he stopped buying Bimbo products in March of 2013 because he "found out they were miss labeled" [sic]. However, Mr. Ang testified that price, familiarity, and taste influenced the types of sandwich bread he purchased. In particular, Mr. Ang testified that when choosing between familiar brands of sandwich bread "as long as one was cheaper than the other [he] would buy that brand."

¹ Deposition Transcript of Andrew Ang (Rough), February 13, 2015 (Ang Deposition), p. 40: 1–2.

² Ang Deposition, pp. 2: 20 - 3: 9.

³ Ang Deposition, pp. 52: 1 – 53: 13, 59: 5 – 7, 107: 2 – 10, 151: 23 – 24, 154: 15 – 20.

⁴ Ang Deposition, p. 191: 18.

⁵ Ang Deposition, pp. 18: 9 – 14, 26: 18 – 27: 3.

 $^{^6}$ Ang Deposition, pp. 61: 22 – 62: 3. Mr. Ang tried, and liked the taste of, these brands.

⁷ Ang Deposition, pp. 62: 22 - 63: 5.

9. Lynn Streit ("Ms. Streit" or "Plaintiff" and collectively with Mr. Ang "Plaintiffs") is a resident of California and has resided in San Jose for more than ten years. Ms. Streit recalls purchasing Sara Lee 100% Whole Wheat Bread and Entenmann's Soft'ees among other Bimbo products. Ms. Streit testified that she experienced "overwhelming confusion about all the different breads to choose from" and tried "to determine what's the healthiest wheat bread." However, Ms. Streit testified that price, taste, availability at Safeway, and her children's preferences influenced the types of sandwich bread she purchased. 12

B. Bimbo Bakeries USA, Inc.

10. Bimbo Bakeries USA, Inc. ("Bimbo") is "the U.S. Division of Mexico's Grupo Bimbo." Bimbo "operates over 70 bakeries and distributes leading brands" such as Arnold, Ball Park, Bimbo, Boboli, Brownberry, EarthGrains, Entenmann's, Francisco, Freihofer's, Iron Kids, Marinela, Mrs. Baird's, Oroweat, Sara Lee, Stroehmann, Thomas', and Tia Rosa. Himbo's acquisition of Sara Lee in 2011 represented the company's largest acquisition to date.

⁸ Deposition Transcript of Lynn Streit (Rough), February 11, 2015 (Streit Deposition), p. 25: 4 – 12.

 $^{^9}$ Streit Deposition, p. 78: 2 – 13.

¹⁰ Streit Deposition, p. 5: 20 - 21.

¹¹ Streit Deposition, p. 10: 7 - 8.

¹² Streit Deposition, pp. 80: 11 – 13; 85: 19 – 86: 2; 95: 10 – 12.

¹³ "Media Center." (http://bimbobakeriesusa.com/about_us/media_center.php) (Accessed March 16, 2015).

¹⁴ Ibid.

¹⁵ "Our History." (http://bimbobakeriesusa.com/about us/our history.html) (Accessed March 16, 2015).

C. Challenged Claims

1. Heart-Check

11. Plaintiffs allege that the American Heart Association ("AHA") Heart-Check Mark displayed on labels of certain Bimbo products is a "paid endorsement." In particular, Plaintiffs allege that "labels bearing the Heart-Check Mark must disclose that it is a paid endorsement" under federal and state law. ¹⁶ Further, Plaintiffs allege that this label "increases sales where consumers mistakenly believe that a product... is healthier than products that do not contain the mark." The products accused under this claim include Thomas' Plain Bagel Thins, Thomas' 100% Whole Wheat Bagel Thins, Thomas' Everything Bagel Thins, Arnold's 100% Whole Wheat Bread, Arnold's 12 Grain Bread, and Arnold's Healthy Multi Grain Bread. ¹⁸

2. Whole Grain

12. Plaintiffs allege that certain labels stating that Bimbo products are an "excellent source of whole grain" or a "good source of whole grain" are "barred under federal and state law." Further, Plaintiffs allege that "consumers mistakenly believe that products that make such whole grain claims are healthier than other similar products" and that "this belief impacted their decisions." The products accused under this claim include Sara Lee Classic 100% Whole Wheat Bread, Sara Lee 100% Whole

¹⁶ Plaintiffs' Motion For Class Certification, For Appointment of Class Representatives, and For Appointment of Class Counsel and Supporting Memorandum, February 18, 2015, p. 2.

¹⁷ Ibid.

¹⁸ Plaintiffs' Motion For Class Certification, For Appointment of Class Representatives, and For Appointment of Class Counsel and Supporting Memorandum, February 18, 2015, p. i.

¹⁹ Plaintiffs' Motion For Class Certification, For Appointment of Class Representatives, and For Appointment of Class Counsel and Supporting Memorandum, February 18, 2015, p. 3.

²⁰ Plaintiffs' Motion For Class Certification, For Appointment of Class Representatives, and For Appointment of Class Counsel and Supporting Memorandum, February 18, 2015, pp. 3 – 4.

Wheat Bread, Sara Lee Soft & Smooth Whole Grain White Bread, or Sara Lee Soft & Smooth 100% Whole Wheat Bread.²¹

3. Added Coloring

13. Plaintiffs allege that certain Bimbo products containing "added coloring such as Yellow 5, Red 40, and caramel coloring" do not "meet the standard of identity for bread" according to FDA regulations. Further, Plaintiffs allege that "[c]onsumers mistakenly believe that they are purchasing bread products when, in actuality, they are purchasing illegally labeled products." The products accused under this claim include Bimbo Original Toasted Bread, Bimbo Double Fiber Toasted Bread, Arnold Marble Jewish Rye Bread, Arnold Pumpernickel Jewish Rye Bread, Oroweat Dark Rye Bread, Oroweat Sweet Hawaiian Bread, Stroehmann Deli Soft Rye - No Seeds, Stroehmann Deli Soft Rye - Seeds, Thomas' Cinnamon Raisin Swirl Toasting Bread, or Thomas' Cranberry Swirl Toasting Bread.

4. 100% Whole Wheat

14. Plaintiffs also allege that federal and state law preclude "products that contain soy flour (a non-whole wheat flour)" from being labeled as "100% whole wheat." Further, Plaintiffs allege members of the class "believed that these products were

²¹ Plaintiffs' Motion For Class Certification, For Appointment of Class Representatives, and For Appointment of Class Counsel and Supporting Memorandum, February 18, 2015, p. i.

²² Plaintiffs' Motion For Class Certification, For Appointment of Class Representatives, and For Appointment of Class Counsel and Supporting Memorandum, February 18, 2015, p. 4.

²³ Ibid.

²⁴ Plaintiffs' Motion For Class Certification, For Appointment of Class Representatives, and For Appointment of Class Counsel and Supporting Memorandum, February 18, 2015, p. i.

²⁵ Plaintiffs' Motion For Class Certification, For Appointment of Class Representatives, and For Appointment of Class Counsel and Supporting Memorandum, February 18, 2015, p. 4.

100% whole wheat, and that belief impacted their decision to buy these products."²⁶ The products accused under this claim include Sara Lee 100% Whole Wheat Bread, Sara Lee Classic 100% Whole Wheat Bread, Arnold 100% Whole Wheat Pocket Thins Flatbread, Arnold Bakery Light - 100% Whole Wheat Bread, Bimbo 100% Whole Wheat Tortillas, Brownberry 100% Whole Wheat Pocket Thins Flatbread, Thomas' 100% Whole Wheat Bagels, Thomas' 100% Whole Wheat Bagel Thins, Thomas' 100% Whole Wheat Mini Bagels, Thomas' Sahara 100% Whole Wheat Pita Pockets, Thomas' Sahara 100% Whole Wheat Pita Pockets Mini Size, Thomas' 100% Whole Wheat English Muffins, and Tia Rosa 100% Whole Wheat Tortillas.²⁷

D. Definition of Putative Classes

15. Plaintiffs moved to certify a class comprised of "[a]ll consumers in the State of California who, from March 18, 2009 to the present, purchased" the products listed above. ²⁸ I understand that Bimbo does not distribute some of these products in California. **Exhibit 1** contains a summary of the products purchased by the named Plaintiffs ("Purchased Products") and substantially similar products ("Substantially Similar Products") distributed in California.

²⁶ Plaintiffs' Motion For Class Certification, For Appointment of Class Representatives, and For Appointment of Class Counsel and Supporting Memorandum, February 18, 2015, p. 5.

²⁷ Plaintiffs' Motion For Class Certification, For Appointment of Class Representatives, and For Appointment of Class Counsel and Supporting Memorandum, February 18, 2015, pp. i – ii.

²⁸ Ibid.

IV. ANALYSIS AND OPINIONS

- A. Calculating Restitution To Individual Consumers Will Require Individual Inquiry, And Plaintiffs Have Provided No Evidence Or Method For Calculating Restitution
- 16. The following sections contain a detailed critique of Dr. May's declaration and testimony. Before I begin that critique, however, I provide a general observation.
- 17. In his declaration, Dr. May writes that he intends to measure restitution to affected customers. I understand that restitution depends in part on what a consumer paid. Providing restitution to individuals therefore requires knowledge of what each individual paid. Since retail bread prices paid by consumers may vary from one customer to another, learning what each individual paid requires individual inquiry into the purchases of each customer.
- 18. Plaintiffs have provided no evidence of the prices paid by any individual consumer. In fact, Plaintiffs have not provided receipts of their own purchases, and they cannot recall the prices they paid.²⁹ Without such information, the Plaintiffs have no evidence of how much each should be compensated. Additionally, I am unaware of any method provided by Plaintiffs for calculating such amounts.
- 19. In particular, Dr. May did not provide such a method. He testified that his task was to calculate an overall estimate of damages to the entire putative class, and that he

²⁹ See e.g., deposition testimony of Andrew Ang and Lynn Streit: "Q:...Do you have any documents anywhere that indicate that you ever purchased any Bimbo Bakeries products? A: No." (Streit Deposition, p. 149:18-21); "Q: How much did you pay for any Sara Lee bread product? A: I have no idea." (Streit Deposition, p. 149:6-8); "Q: Do you have in you proof of purchase any Bimbo bakery's products at all? A: No." (Ang Deposition, p. 167:6-8); "Q: And just to be clear you don't know how much 83 paid for [Bimbo] products in any given year correct? A: That's correct. Q: And you don't know how much you paid for Bimbo products over the past four years? A: I don't know that. Q: The past eight years? A: No. Q. Do you know how much you've paid for Bimbo products in 2012? A. No." (Ang Deposition, p. 183:3-13).

leaves it to the court to allocate those damages to individuals.³⁰ Since restitution requires knowing what each individual paid, Dr. May's approach is not only inadequate for that purpose, but also it does not provide what I understand Plaintiffs must show – a method for calculating restitution to each affected consumer.

- 20. Even setting aside that observation, Dr. May's methods described in his declaration and testimony are deeply flawed. The following sections explain why.
- B. Purchase Price Restitution Is Not A Measure Of Economic Harm To Consumers Resulting From The Challenged Conduct And Materially Overstates Alleged Economic Damages, If Any, To Members Of The Putative Class
- 21. Dr. May's two Purchase Price Restitution approaches to calculating damages Full Purchase Price Restitution and Restitutionary Disgorgement seek to return the full purchase price (or a proxy for full purchase price) of the Challenged Product to members of the putative class. In the Full Purchase Price Restitution and Restitutionary Disgorgement methods, Dr. May proposes to use retail prices and wholesale prices respectively as measures of harm.³¹ However, both economics and common sense tell us that any valid measure of harm must account for the value of benefits actually received. Because consumers derive value from many attributes of the Challenged Products unrelated to the Challenged Claims, returning the full purchase price (even assuming that amount could be determined for individual

³⁰ He testified that he will "calculate a number that's going to be common to everyone... that can be used to distribute that in any way the court sees fit..." Deposition Transcript of Donald May, March 11, 2015, (May Deposition), p. 107: 6 - 9.

³¹ Declaration of Dr. Donald M. May in Support of Plaintiffs' Motion for Class Certification, For Appointment of Class Representatives, and for Appointment of Class Counsel, February 18, 2015 (May Declaration), ¶¶19 and 21-24.

- consumers) to Class Members will overcompensate them for any harm resulting from the allegedly false claims.
- 22. One of the articles cited in the May Declaration acknowledges this idea and describes it in terms of value from consumption. It explains that:

Even if a consumer is deceived into making a purchase, she might still have obtained some value from the consumption of the product. She would have been willing to pay something for the product in the absence of the deceptive practice. If the consumer recovers the full purchase price as damages, however, then she will have received this value for free.³²

- 23. Dr. May apparently agrees. During his deposition, in reference to the quote above, he explained: "...He's saying if they did receive something of value, and they got their re

 the purchase price back, then they received that portion for free. So I would agree with that."
- 24. Despite this recognition, in both of his Purchase Price Restitution methods, Dr. May relies upon a conflicting "legal assumption" that allegedly mislabeled food has zero value to those who purchased it. In defense of this assumption, Dr. May conjectures that a consumer "...might find it objectionable if something was in there and then, in hindsight, determined it had no value to them." However, Dr. May does not provide any evidence from data, consumer surveys, or any other sources that a single consumer thinks about the Challenged Products in this way.
- 25. The evidence in this matter confirms that the value consumers derive from the Challenged Products stems from many aspects of the products, not just the

³² Abere, Andrew, "Using Economics to Measure Consumer Damages in Private Advertising Litigation," The ADviser, vol. 1, iss. 1, August 1, 2010, p. 1.

³³ May Deposition, pp. 115: 23 – 116: 3.

 $^{^{34}}$ May Deposition, pp. 83: 24 – 84: 2.

Challenged Claims. Surveys and market analyses conducted by the Defendant reveal this. Consumers in general value many aspects of bread products. In a November 2011 presentation by David Browne of Mintel titled "Bread," results from a survey of shoppers indicates the attributes of bread products that matter most. These include "whole wheat" and "whole grain," but also "high in fiber," "reduced fat," and "baked locally," among others.³⁵ Other factors that matter to consumers include bread "texture," "homemade" taste, and "long expiration." A virtual shopping survey by SymphonyIRI Group reveals that "[t]astes great" and "[m]akes a great sandwich" are among the important reasons for purchase.³⁷ Another presentation³⁸ shows that consumers place importance on not just "high amount of whole grains" but also "high in fiber" and "low in sodium."

26. Purchasers of Bimbo's products also value many attributes of those products. For example, a 2010 survey of purchasers of Thomas' Bagel Thins asked purchasers about the most important reason for their purchase.³⁹ These included: "[o]nly 110 calories," "[h]as fewer calories than a regular bagel," "[j]ust the right size portion," "[w]orth 1 Weight Watchers point value," "[i]s healthier than a regular bagel," "[h]ad

³⁵ Browne, David, "Bread, U.S., November 2011, Presented at Bimbo Bakeries USA," November 3, 2011 (CTRL00067207.pptx), p. 19.

³⁶ Browne, David, "Bread, U.S., November 2011, Presented at Bimbo Bakeries USA," November 3, 2011 (CTRL00067207.pptx), p. 20.

³⁷ Symphony IRI Group, "SymphonyIRI Consumer Network Panel Capabilities," February 28, 2012 (CTRL00164539.pptx), p. 15.

³⁸ "Sam's/BBU Premium Bread Review," June 28, 2011 (CTRL00004489.pptx), p. 19.

³⁹ Symphony IRI Group, "SymphonyIRI Consumer Network Panel Capabilities," February 28, 2012 (CTRL00164539.pptx), p. 7.

- a coupon," "[i]t was on sale," and "[b]rand I like/trust." The presence of the Heart-Check Mark (the Challenged Claim relevant for Thomas' Bagel Thins) was not among these top reasons.
- 27. The Plaintiffs' testimony provides further evidence that consumers' purchases of the Challenged Product are driven by numerous factors unrelated to the Challenged Claims. Mr. Ang testified that there were numerous characteristics unrelated to the Challenged Claims including price, familiarity, and taste that were important to him when he purchased several Bimbo products. In particular, Mr. Ang testified that, when choosing between familiar brands of sandwich bread, "as long as one was cheaper than the other [he] would buy that brand." Ms. Streit testified that price, taste, availability at Safeway, and her children's preferences influenced the types of sandwich bread she purchased. These purchase drivers are unrelated to the Challenged Claims and demonstrate that many factors influence purchase decisions.
- 28. From an economic perspective, the assumption that mislabeled food has zero value to those who purchased it is absurd. If a Challenged Product has zero value because of the Challenged Claims, then all the value that each consumer places on that Challenged Product would be attributable to the Challenged Claims alone. The facts here do not support such a conclusion. The fact that consumers derive value from

⁴⁰ Symphony IRI Group, "SymphonyIRI Consumer Network Panel Capabilities," February 28, 2012 (CTRL00164539.pptx), p. 7.

⁴¹ Ang Deposition, pp. 18: 7 – 14; 26: 18 – 27: 3.

⁴² Ang Deposition, pp. 62: 22 - 63: 3.

⁴³ Streit Deposition, pp. 80: 11 – 13; 85: 19 – 86: 2; 95: 10 – 12.

⁴⁴ Furthermore, consumers' reasons for purchase may vary from consumer to consumer. The fact that a given customer can purchase Bimbo bread products based upon multiple, different considerations necessitates individualized inquiry to determine a putative Class Member's rationale for purchasing those products and the extent of any claimed injury and corresponding damages.

many aspects of the Challenged Products means that the assumption underlying Dr.

May's Purchase Price Restitution methods is incorrect from an economic perspective,
and may lead to a dramatic over-estimate of the amount of damages to each
individual consumer and to the putative class as a whole.

- C. Dr. May Has Failed To Demonstrate That The Hedonic Regressions He Proposes To Use Could Be Successfully and Appropriately Implemented In This Case
- 29. Dr. May proposes to use the technique of hedonic regression to calculate the value placed on the Challenged Claims by consumers:

...with the hedonic regression approach, we are in position to identify the impact of the labeling claim on the prices of food products....Simply put, controlling for other attributes in the regression analysis (e.g., brand, package size, seasonality of prices, year-to-year fluctuations in prices attributed to economic conditions), we may ascertain the impact of the labeling claim on prices of particular food products.⁴⁵

- 30. However, Dr. May has done little more than identify hedonic regression as a potentially useful analytic tool. Consequently, there is no assurance that hedonic (or any other) regression analysis can be applied appropriately or that it will yield reliable and informative results in this case. As noted by a leading authority on the use of regression analysis in litigation cited in the May Declaration "when inappropriately used, regression analysis can confuse important issues while having little, if any, probative value."
- 31. In fact, as a matter of econometric practice, there are a number of necessary (and not easily achieved) conditions that must be met for regression analysis to be

⁴⁵ May Declaration, ¶37.

⁴⁶ Rubinfeld, Daniel. "Reference Guide on Multiple Regression." *Reference Manual on Scientific Evidence*. Third ed. Federal Judicial Center, 2011, p. 308.

implemented and yield reliable results, and Dr. May has failed to demonstrate that these conditions are, or can be, met in this case. Principal among these conditions is that adequate data must be available to implement the regression model and reliably estimate the effects of interest (*i.e.*, the incremental price, if any, associated with the Challenged Claims). The data Dr. May anticipates using will be California-specific "weekly information by Universal Product Code ("UPC") and by brand for the relevant time period," including "metrics of dollar sales, unit sales, and volume sales" to be provided by the Defendant or a third party vendor such as Information Resources, Inc. ("IRI").⁴⁷ In his declaration, Dr. May acknowledges that his methods are dependent on the availability of appropriate data:

With appropriate data, both the value of the labeling characteristic and incremental sales damages methodologies can be used to determine damages associated with partial restitution of the purchase price....⁴⁸

32. Despite this recognition, as discussed in greater detail in Sections IV.D through IV.F below, Dr. May fails to show that "appropriate data" required to reliably estimate hedonic (and before and after) regressions in this case are available. In his declaration, he acknowledged that he does not know whether the data produced to date in this matter will support his proposed methodologies: "Our analysis of the data provided by Defendant is in process, and we will update our data request if we find that there are additional data items required to complete our analyses." Dr. May appears to simply presume, without any apparent basis, that any and all deficiencies

⁴⁷ May Declaration, ¶ 42.

⁴⁸ May Declaration, ¶ 32. Emphasis added.

⁴⁹ May Declaration, ¶ 19, footnote 7.

in the Defendant's data, including those he has not yet identified, can be remedied by the Defendant. The incompleteness of Dr. May's proposal in this regard was apparent throughout his deposition. He was repeatedly unable to provide specific answers to questions about how his proposed method would be implemented because he had not yet identified or examined the data he would use. For example, when asked to, Dr. May could not provide the list of data he would use and he could "only be very general at this point." Dr. May also acknowledged that he has "not looked at any data." Without greater specificity and detail concerning the data he intends to use, it is impossible to evaluate whether Dr. May's methodology can be implemented in this case.

33. One important issue that cannot be evaluated without further information on the data to be used in the analysis is whether the effect, if any, of the Challenged Claims on product prices can be isolated, or "teased out," from the effects of other factors.

Whether any effects of the Challenged Claims can be isolated from the effects of confounding factors affecting prices depends on how the explanatory variables in the regression covary with one another and with the dependent variable. For example, if the Challenged Claims were highly correlated with another variable - a well-known problem in econometrics called "multi-collinearity" - one could not accurately estimate individual associations of each variable with price. Dr. May apparently recognizes that to know whether it will be possible to isolate any effects of the Challenged Claims in this case one must know that the needed data are available and

⁵⁰ May Deposition, p. 89: 3-4.

⁵¹ May Deposition, p. 38: 2.

that they covary in the required ways. At his deposition, in explaining his proposed regression methodologies, Dr. May testified as follows:

[M]ethodologies that I propose to use here are used to tease that effect out. And to the extent we have data that allows us to do that, we could use a similar methodology to understand if this particular claim matters.⁵²

34. Another potential issue that cannot be evaluated without greater information than provided by Dr. May about the data to be used concerns omitted variables — explanatory variables that should be, but are not, included in the regression model. Econometric theory teaches that omitted variable can lead to bias in regression results.⁵³ A noted expert in the use of regression analysis in litigation has summarized the potential consequences of failing to include in a regression important explanatory factors that may be correlated with the dependent variable (product prices in the hedonic regressions):

In general, omitted variables that are correlated with the dependent variable reduce the probative value of the regression analysis....

 $^{^{52}}$ May Deposition, p. 88: 4 - 8. Emphasis added.

omitted variable bias can arise when an independent variable, known to be related to the dependent variable, is excluded from the regression. If the omitted variable is correlated with another independent variable included in the regression, the omission will result in a biased coefficient for the other independent variable. "Bias" in the regression context simply means that the calculated value – the coefficient here – is not equal to the expected, or "true" value for the coefficient. (Wooldridge, Jeffrey M. *Introductory Econometrics: A Modern Approach.* 5th ed. New Delhi: Cengage Learning India, 2012, pp. 84 – 89; 681 – 682.) An example might help to illustrate this bias. Suppose that prices of Thomas's Everything Bagel Thins are correctly modelled as driven by two effects: The appearance of the Heart-Check Mark on the product's label and an advertising campaign that coincided with the appearance of the Heart-Check Mark. Suppose that we had data on all the variables – dependent and independent – in the regression, and when we ran the regression, we found that advertising expenditures were highly correlated with changes in prices and the appearance of the Heart-Check Mark had very little or no effect. If instead we were unable to gather data on advertising expenditures, but ran the regression anyway without the advertising variable, we would find that the Heart-Check Mark indicator variable would be associated with substantial increases in price. Omitting advertising expenditure from the regression leads to bias in the coefficient on the Heart-Check Mark indicator.

[T]he omission of an important variable may lead to inferences made from regression analyses that do not assist the trier of fact.⁵⁴

- 35. As discussed in detail in Section IV.F below, Dr. May has neither identified all the factors that may affect prices of the Challenged Products and should be included in his regression, nor demonstrated that data measuring these factors are available.
 Without this information his proposed regression methods cannot be properly evaluated.
- 36. Lastly, until more specific information is provided concerning the precise data Dr. May proposes to use in his regressions it is not possible to evaluate whether other problems that often plague regressions can be avoided in this case. One such problem is measurement error. Measurement error simply means that one or more of the variables in a regression includes values that are incorrect, not accurate, or missing, and, consequently, have to be estimated. In Section IV.E below, I discuss the difficulty that will be encountered in accurately measuring the key explanatory variables in Dr. May's hedonic regression accurately. Section IV.E below, I discuss the difficulty that will be encountered in accurately measuring the key explanatory

⁵⁴ Rubinfeld, Daniel. "Reference Guide on Multiple Regression." *Reference Manual on Scientific Evidence*. Third ed. Federal Judicial Center, 2011, p. 314.

⁵⁵ In the case of a multiple regression such as Dr. May's, measurement error can lead to biased results. If the coefficient is biased, it means that what Dr. May calculates does not measure the effect correctly. Unfortunately, without the actual data there is no way to tell whether such measurement error would lead to a positive bias (estimated coefficient higher than the true value) or a negative bias (estimated coefficient lower than the true value). In either event, though, Dr. May's mismeasurement could lead to overcompensating or undercompensating plaintiffs. (Wooldridge, Jeffrey M. *Introductory Econometrics: A Modern Approach*. 5th ed. New Delhi: Cengage Learning India, 2012, pp. 307 – 313.)

⁵⁶ Researchers have identified several other issues that can arise when implementing hedonic regressions that are not addressed by Dr. May. The most important issue among these is that estimation across time periods, as Dr. May proposes, constrains the measured effect from the Challenged Claim to be constant over time. However, changes in products' characteristics, consumers' preferences or competitive conditions can cause the coefficient to change over time. If the actual effect of Challenged Claim changes over time, and Dr. May does not account for this, his results may overstate the effect in some periods and understate it in others. A second issue is whether the hedonic regression should be estimated as a weighted or unweighted regression. Dr. May proposes estimation using a single observation for each product's price in each time period. This is an unweighted regression. The alternative, in which each observation would be weighted by unit or dollar sales, is an approach that is gaining popularity in the literature.

- 37. In order to evaluate whether Dr. May's proposed methodologies can be successfully implemented in this case, much more clarity, specificity, and analysis of the data he proposes to use are required.
- D. Dr. May Does Not Identify The Products To Be Included In His Hedonic Regressions That He Considers To Be Comparable To The Defendant's Products At Issue In This Case
- 38. In his declaration, Dr. May explains that "[i]n this litigation, to implement the hedonic regression approach, we must consider prices of the Defendant's products (with the labeling claim) as well as prices of comparable products (with or without the labeling claim)."⁵⁷ During his deposition, Dr. May explained that comparable products to a particular Challenged Product could be (1) the same product, during a different time period, with identical labelling except for the Challenged labelling; (2) substitute products within the same brand; and (3) substitute products outside of the brand. Dr. May does not know which comparable products he would use in his hedonic regression. Furthermore, Dr. May has not gathered any data on any comparables, and he testified that he is unsure how he would obtain such data.
- 39. Dr. May's failure to identify products comparable to the Challenged Products leaves no way to determine whether his proposed method will yield usable estimates. First, Dr. May does not know which products are sufficiently similar to the Challenged

(Aizcorbe, Ana. *A Practical Guide to Price Index and Hedonic Techniques*. New York, NY: Oxford University Press, 2014, pp. 41 – 42.)

⁵⁷ May Declaration, ¶ 37.

 $^{^{58}}$ May Deposition, p. 159: 5 – 15.

⁵⁹ May Deposition, pp. 157: 24 – 159: 19.

⁶⁰ May Deposition, pp. 156: 13 – 157: 10.

⁶¹ May Deposition, pp. 132: 2 - 17.

Products to be used as comparables in his analysis. For example, during his deposition, when asked whether "bread, tortillas, and pita" are comparables that he would include in a "100% Whole Wheat" regression, Dr. May replied that he would have to think about it, that it would not be his "first choice," but that he would use them if there were no other more similar products without the Challenged Claim. ⁶² He went on to say he could not answer whether non-sliced bread is comparable and did not know which of the Defendant's own products would serve as substitutes. ⁶³ Until Dr. May specifically identifies the products he proposes to use as comparables, there is no way to ascertain from an economic perspective whether his selections will be sufficiently similar to the Challenged Products to be appropriately included in a proper regression analysis.

- 40. Second, without a clear enumeration of the comparable products he intends to use,

 Dr. May has no way to know whether there are sufficient numbers of comparable
 products with adequate data to allow estimation of the regression. If it turns out that
 the number of comparables (and associated numbers of observations and variation in
 prices and product attributes) is small, and the number of independent variables used
 in the regression is large, there may not be sufficient data to provide meaningful
 regression estimates.⁶⁴
- 41. Third, a lack of data on comparable products poses another potential problem. Dr.

 May admits that he does not know if all required data for such comparables is

⁶² May Deposition, pp. 157: 24 – 158: 12.

⁶³ May Deposition, pp. 158: 13 – 159: 15.

⁶⁴ Goldberger, Arthur Stanley. *A Course in Econometrics*. Cambridge, Mass.: Harvard University Press, 1991, pp. 248-250.

obtainable. Specifically, as discussed in Section IV.E.2 below, Dr. May testified that he expects to be able to gather necessary information from other manufacturers. At this point, he has not gathered any such data and has not demonstrated whether he will be able to gather it from all, or any, manufacturers. If such information is missing from his regression and consequently has to be estimated, the relevant variables will suffer from measurement error, which, as discussed above, may lead to biased coefficient estimates on the variable of interest. Furthermore, if missing data from other manufacturers cause his model to contain only a small number of comparable products, there may be inadequate variation in prices and product attributes to allow statistical identification of the "implicit prices" of the Challenged Claims.

E. Dr. May Has Provided No Evidence That He Can Accurately Identify Which Sales Transactions Involve The Challenged Claims And Which Do Not

42. The essence of both of Dr. May's regression-based approaches to estimating damages is to measure the difference, if any, between prices of products with a Challenged Claim (*i.e.*, the treatment group) and prices of the same or similar products without the Challenged Claim (*i.e.*, the control group). To produce a reliable estimate of damages, Dr. May must, among other things, accurately classify each observation used in his regression as involving either products with the Challenged Claim or products without the Challenged Claim. To the extent transactions are misclassified in this regard, the critical variable in Dr. May's damages model indicating whether or not an observation includes the Challenged Claim will be measured with error and the

⁶⁵ May Deposition, pp. 217:13 – 218: 13.

model will not provide an accurate indication of either the price premium associated with the Challenged Claim, if any, or damages.

- 1. Transactions in the Challenged Products around the time of a label change involving the Challenged Claims cannot be accurately classified between the control and treatment groups
- 43. For many of the Challenged Products, the Challenged Claim was either added to the product label or removed from the product label, or both, during the class period. For example, the Challenged Claim "good source of whole grain" was added to the label for Sara Lee Soft & Smooth Whole Grain White Bread⁶⁶ on or after September 2013 and was subsequently removed from the label on or after July 2014.⁶⁷ As shown in **Exhibit 2,** 11 Challenged Claims were added to the labels of Challenged Products during the class period, while 19 Challenged Claims were removed from the labels of Challenged Products at some point during the class period.
- 44. I understand that, while the general timeframes during which a Challenged Claim was added to or deleted from the label of a Challenged Product can be identified, it is not possible to determine precisely when the new labels appeared on store shelves, or when old labels stopped appearing.⁶⁸ This is because there can be, and were, lags of varying durations between the time a decision was made to change a label and the time the new label was fully implemented and appeared on all units of the product in retail outlets. During the time around a label change there were likely sub-periods of

⁶⁶ UPC 7294561139.

⁶⁷ Defendant's Responses To Plaintiffs' Third Set of Interrogatories, February 20, 2015.

⁶⁸ Declaration of Kenneth W. Gerhart in Support of Bimbo Bakeries, USA, Inc.'s Opposition to Plaintiffs' Motion for Class Certification, April 2, 2015, p. 6.

- overlap when some units of a Challenged Product included the old label and other units included the new label.
- 45. Given these facts, it is not possible, as a matter of sound economic principles, to reliably classify transactions of the Challenged Products around the time of a label change involving a Challenged Claim. This means that the critical variable in Dr. May's regression models indicating whether an observation includes the Challenged Claim may be measured with error. Stated differently, for some number of observations involving the Challenged Products, Dr. May will be unable to determine whether the observation should be included in the control group or in the treatment group. To the extent transactions are misclassified, Dr. May's regression results will not accurately reflect the price premium, if any, associated with the Challenged Claim and consequently his method will not yield an accurate estimate of damages, if any.
 - 2. Dr. May has proposed no method or data source that would enable him to identify which transactions involving non-Bimbo products include the Challenged Claims
- 46. In addition to transactions involving Bimbo products, Dr. May indicates that he may use transactions involving non-Bimbo products in his hedonic regression model, both as members of the control group (*i.e.*, non-Bimbo without the Challenged Claims) and as members of the treatment group (*i.e.*, non-Bimbo products with the Challenged Claims). However, Dr. May has not demonstrated a method to determine which non-Bimbo products include the Challenged Claims and which do not. Further,

⁶⁹ This discussion focuses on label changes involving the Challenged Claims, but the same problem exists for other label changes, or for labels that were never changed. To the extent that the effective date of a label change not involving a Challenged Claim cannot be accurately determined, it is not possible to fully control for the effect that change may have on product prices and/or sales.

⁷⁰ May Declaration, ¶ 37; May Deposition, p. 132: 2 - 14.

because the labels of non-Bimbo products may have changed over time just as the labels on Bimbo's products did, Dr. May must determine over what periods each non-Bimbo product contained the Challenged Claim on its label. At his deposition, Dr. May was asked about how he would make such a determination:

- Q: How would you ascertain which products to include in that control group, the non-Bimbo Bakeries products?
- A: Well... I'd want to know if they contained this labeling claim, and when they contained it.
- Q: How would you get those data?
- A: Again, we'd have to research that. I'm not exactly sure.⁷¹
- 47. Later in his deposition, Dr. May asserted that IRI or other manufacturers might be a source of such information:
 - Q: As you sit here today, do you anticipate from what sources you would get information for products sold by other manufacturers in California 5 years ago?

. . .

- A: The IRI data would have that. Sometimes the IRI data is specific on the labeling claim itself.
 - It was my experience, if it's not, then you'd have to do some more research and perhaps, again, if you're going outside of defendants' products, get data directly from those manufacturers.⁷²
- 48. Under my direction, Analysis Group personnel contacted IRI for information about data available from IRI databases. I understand that the product description is the

⁷¹ May Deposition, p. 132: 8 - 17.

⁷² May Deposition, p. 217: 13 – 25.

most comprehensive variable to identify Challenged Claims.⁷³ The product description variable contains the product UPC and an abbreviated product description, including count and product size. Example product descriptions for three of the Challenged Products are as follows:

- "7294560134 +SRRLE %WWHT BRD SNDW REG 200Z", (Sara Lee Classic 100% Whole Wheat Bread)
- "4812113546 THOMAS BAGEL THINS 100% WHOLE WHEAT BAGELS
 8CT 13OZ"⁷⁵ (Thomas' 100% Whole Wheat Bagel Thins, 8 Count)
- "4812113557 THOMAS BAGEL THINS 100% WHOLE WHEAT BAGELS 10CT 16.25OZ" (Thomas' 100% Whole Wheat Bagel Thins, 10 Count)
- 49. Calls with the IRI sales team confirmed that, with the exception of the 100% Whole Wheat Challenged Claim, the other three Challenged Claims would likely not be found in the product description variable. This suggests that, to the extent the same is true for products of other manufacturers, Dr. May would not be able to rely on IRI for most of the Challenged Claims related to non-Bimbo products.
- 50. The probability such data could be collected directly from manufacturers seems remote. It is unlikely that any manufacturers would voluntarily choose to provide detailed information about their label claims to the Plaintiffs or their lawyers. When asked, Dr. May was unable to identify a past case in which he used data from

⁷³ This variable does not contain a header in the IRI sales data files, but will be referred to as the product description variable.

⁷⁴ BBUSA_ANG000004.xlsx.

⁷⁵ BBUSA ANG000002.xlsx.

⁷⁶ BBUSA ANG000002.xlsx.

manufacturers other than the manufacturer at issue in the case.⁷⁷ Furthermore, I am aware of no publicly available source of information that would allow transactions involving non-Bimbo products to be accurately classified between the control and treatment groups in Dr. May's proposed regressions.

- F. Dr. May Does Not Identify All Factors That Might Affect The Prices And/Or Volume Sold Of The Products To Be Used In His Proposed Regressions And He Has Not Established The Availability Of Data Necessary To Implement Those Regressions
- 51. In his declaration, Dr. May writes, "With regression analysis, it is possible to isolate the consequence of the alleged misrepresentation by controlling for *all other factors* that may affect the price differentials, prices and/or volume sold of the challenged products." As discussed in Section IV.C above, it is well-recognized among economists that failing to control for important explanatory factors related to the variables of interest can lead to regression results that are biased and unreliable.
- 52. To evaluate Dr. May's proposed method of calculating damages it is necessary to determine whether his proposed model is complete in the sense that all important explanatory factors are identified and the data required to implement the model are available.
 - 1. Dr. May has failed to identify all potentially important explanatory factors to be included in his regressions
- 53. In his declaration, Dr. May listed the following seven factors for inclusion as explanatory variables in his hedonic regression: 1) package size; 2) seasonality of

⁷⁷ May Deposition, p. 218: 14 – 23.

⁷⁸ May Declaration, ¶ 35. Emphasis added.

- prices; 3) year; 4) presence or absence of the labeling claim; 5) brand; 6) product characteristics; and 7) consumer price index for the state of California.⁷⁹
- 54. While he identified the general category "product characteristics," Dr. May did not specify what specific characteristics he proposes to include as explanatory variables in his regressions. At his deposition, he explained as follows:
 - Q: My question, Dr. May, was whether you, prior to today, undertook an examination of what the bundle of characteristics were for any of the products at issue in this litigation.
 - A: No. As I said before, I have not looked at specific data here. So I wouldn't be able to do that at this point. 80
- 55. Without knowing which product characteristics Dr. May proposes to include in his model, one cannot determine whether his regression includes (or even can include) the proper explanatory variables. Further, it is important to recognize that these unidentified characteristics must be known, not only for the Challenged Products, but also for the comparable products in Dr. May's hedonic regression, which may include both Bimbo and non-Bimbo products. This further heightens the concern, discussed previously in this section, that Dr. May has not identified reliable sources for these data.
- 56. In addition to the seven explanatory factors mentioned in his declaration, at his deposition, Dr. May acknowledged that two other factors might also be included:

⁷⁹ May Declaration, ¶ 45.

 $^{^{80}}$ May Deposition, p. 131: 4 – 10. Earlier in his deposition, Dr. May identified the type of product (e.g., bagels) and flavor (e.g., plain or cinnamon raisin) as possible product characteristics to be included in his model. (May Deposition, p. 128: 14 – 24.)

- advertising expenditures "...to this particular product or products in general" and "characteristics of competing products." 81
- 57. While Dr. May expanded his list of potential explanatory factors somewhat at his deposition, he has offered no theoretical or other framework to determine what factors may influence prices or sales volumes of the products at issue in this case.

 Without such a framework, there is no basis to conclude that there are not other important factors affecting product prices or volumes that have been omitted from the proposed specifications of Dr. May's damages models. In fact, there are a number of obvious candidates that Dr. May fails to include in his regressions that can reasonably be counted among "all other factors that may affect the price differentials, prices and/or volume sold" of the Challenged Products and the comparable products. A non-exhaustive list includes the following:
 - Other Package Label Claims: In his declaration, Dr. May cites numerous studies that report statistically significant price effects ranging up to 40 percent associated with various label claims including: all natural or natural; preservative free; sustainable attributes; antioxidants; and specific health uses. ⁸³ A number of such claims appear on various of the products at issue in this case and those claims are not alleged by the plaintiffs to be illegal.
 - Channel: As discussed in Section IV.I below, the Challenged Products are sold through multiple channels including, for example, grocery stores, drug stores and mass merchandisers, and the prices across various channels can vary significantly. The mix of channels through which

⁸¹ May Deposition, p. 229: 4 – 23. There is an important difference between the comparable products to be included in Dr. May's hedonic regression and competing products. Throughout his deposition, Dr. May stressed that the comparable products to be used in his hedonic regression need include only a sample of the products that would be considered comparable. For example, see May Deposition p. 159: 5 – 11. In contrast, competing products could include comparable products not included in the sample used in Dr. May's regression, as well as other products that, while not considered comparable for purposes of the regression, may nonetheless compete with the Challenged Products and affect their prices and/or volume of sales.

⁸² May Declaration, ¶ 35.

⁸³ May Declaration, ¶ 39 – 41.

- products are sold can affect average price, the dependent variable in Dr. May's hedonic regression.
- Retailer: As discussed further in Section IV.I below, prices can vary significantly between retailers. Changes in the mix of retailers through which products are sold can change average prices, even in the absence of price changes at specific retailers.
- Competitive Factors: Changes in competitive factors within the relevant markets (for both producers and retailers) can affect prices. These factors include entry or exit of competitors, changes in competitors' product lines, and changes in marketing strategies across a number of dimensions including price, product quality, product features, promotion, and method of distribution, to name only a few.
- *Consumers' Tastes*: As discussed further in Section IV.H below, public perception of health benefits and nutrients in food products has likely changed from 2009 to 2014. Because consumers' tastes affect their willingness to pay, they may affect prices as well.
- 58. Because changes in these or other factors could reasonably be expected to affect product prices and volumes sold, omission of these factors from Dr. May's regression could lead to the econometric issue of omitted variable bias, rendering regression results and resulting estimates of damages unreliable. It is possible that these factors may not affect Dr. May's results. However, Dr. May has currently not determined whether that is the case, and his proposed method does not explicitly include a step in which he would evaluate the factors' appropriateness. Furthermore, quantitative measures of many of these factors for example, changes in other package label claims on Bimbo's products and comparable products over a multi-year period of time would be very difficult or impossible to gather. So there will be no way to ascertain their relevance in the model.

- 2. Dr. May fails to clearly identify appropriate counterfactuals that will allow estimation of the pertinent effects required to determine whether Class Members have been injured by the Challenged Claims and, if so, to calculate damages
- 59. Dr. May does not articulate precisely what the appropriate counterfactual should be for each of the Challenged Claims. For example, the Heart-Check allegation rests on the Defendant not having included a disclaimer. Dr. May indicates in his declaration that "a buyer may recover from the seller as damages the value of certain product characteristics such as the Heart-Check Mark that the product claims to have but that in actuality does not." This seems to suggest comparing Challenged Products with the Heart-Check Mark to otherwise identical products without the Heart-Check Mark. However, that procedure does not match the Plaintiffs' allegation, namely that the "labels bearing the Heart-Check Mark must disclose that it is a paid endorsement." Is the proper comparison to products without the Heart-Check Mark or to products with the Heart-Check Mark and a disclaimer? Dr. May does not clearly articulate what comparison he will make.
- 60. Similarly, the counterfactual for the Added Coloring claim is not clearly described either. It appears from Dr. May's mention of "comparable products (with or without the labeling claim)" that he is proposing the counterfactual consisting of Bimbo's products that contain added coloring and are *not* labeled as bread. But I understand that no such Bimbo products similar to those that included the Added Coloring claim exist, and I am not aware of any comparable products from other manufacturers that

⁸⁴ May Declaration, ¶ 25.

⁸⁵ Plaintiffs' Motion For Class Certification, For Appointment of Class Representatives, and For Appointment of Class Counsel and Supporting Memorandum, February 18, 2015, p. 2.

⁸⁶ May Declaration, ¶ 37.

- contain added coloring yet were not labeled as bread. Therefore, Dr. May's counterfactual for the Added Coloring claim is not appropriate or realistic.
- G. Dr. May Has Failed To Demonstrate That The Incremental Sales Regression Approach Can Be Implemented In This Case And, In Any Event, It Does Not Measure The Difference In Value Between What Class Members Paid And What They Received
 - 1. Dr. May has provided an inadequate description of the incremental sales regression approach and failed to demonstrate that it can be implemented in this case
- 61. According to Dr. May, the incremental sales regression approach captures "another measure of the relief to which class members are entitled," which "rests on the portion of sales attributed to the misrepresentations by the Defendant." This methodology attempts to measure damages as the difference in Bimbo unit sales, revenues, or profits for the Challenged Products between periods when the Challenged Claims appeared on a product's labels and periods when they did not. 88 Under this approach, a "measure of sales or sales growth" will be regressed on independent variables including dummy variables indicating the dates of labeling changes in order to estimate the incremental sales associated with each Challenged Claim. 89 Additionally, Dr. May will include controls for factors that would "influence the quantity demanded in that interval, if they had changed."
- 62. Dr. May's description of his proposed incremental sales regression is abstract and incomplete and, as such, is insufficient to allow a determination of whether it can be implemented as a viable statistical model to calculate damages on a class wide basis

⁸⁷ May Declaration, ¶ 31.

⁸⁸ May Declaration, ¶¶ 34 and 54.

⁸⁹ May Declaration, ¶ 54.

 $^{^{90}}$ May Deposition, p. 141: 3 – 4.

in this case. Dr. May's description is inadequate in several ways. First, while he describes the form of his proposed hedonic regression in some detail, ⁹¹ Dr. May does not specify the form of the incremental sales regression but instead refers cryptically to "[t]he same scientifically accepted regression analyses described above..." It is unclear whether he refers to regression analysis in general or to his hedonic regression analysis in particular. If it is the latter, he fails to explain how his incremental sales regression model would resemble his hedonic regression model.

- 63. Second, Dr. May does not consistently identify what the dependent variable in his incremental sales regression will be. At one point in his declaration he asserts that "difference in sales, revenues, or profits of the Bimbo Bakeries products before and after the appearance of the labeling statement at issue on the product can be calculated to determine damages." Elsewhere, he writes that under the incremental sales approach the "data on units sold before and after the labeling claim will be used to directly estimate incremental sales associated with each particular claim." However, in explaining how damages would be calculated under this approach he describes a method based on dollar sales.
- 64. Third, the May Declaration fails to specifically identify *any* explanatory variable he will include in his incremental sales regression, other than indicator variables noting the dates of labeling changes. Yet, Dr. May acknowledges that regression analysis

⁹¹ May Declaration, ¶¶ 44 - 45.

⁹² May Declaration, ¶ 51.

⁹³ May Declaration, ¶ 31.

⁹⁴ May Declaration, ¶ 52.

⁹⁵ May Declaration, ¶ 56.

isolates the effect of the Challenged Claim "by controlling for all other factors that may affect the price differentials, prices and/or volume sold of the challenged products." At his deposition, speaking specifically about the incremental sales regression, Dr. May stated: "You'd want to include in that particular regression controls for other factors that would influence the quantity demanded in that interval, if they had changed." The quantities demanded of the Bimbo products at issue could be influenced by the same factors identified in Section IV.F above. These include, but are not limited to the following: product quality; the level and type of advertising; other package label claims; channels of distribution, the mix of retailers; the number and size of competitors; characteristics of competing products; prices of competing products; conditions in the macro economy and consumers' tastes.

65. To the extent that changes in any of these other explanatory factors around the time of a label change involving the Challenged Claims are not (or cannot be) controlled for, Dr. May's regression may under- or over-state the impact of the Challenged Claims on sales. 98 At his deposition, Dr. May agreed that such a scenario would "make it difficult to distinguish which piece ... is which" and that "[t]o the extent that some of those might have changed at the same time as the labeling claim, they could be important." Further, he admits that such a situation could be fatal to the incremental sales regression approach:

⁹⁶ May Declaration, ¶ 35.

⁹⁷ May Deposition, p. 140: 25 – 141: 4.

⁹⁸ Whether the impact is over- or under-stated depends on whether the Challenged Claim and the factor not controlled for affect sales of the Challenged Product in the same or opposite directions.

⁹⁹ May Deposition, p. 151: 10 – 11.

 $^{^{100}}$ May Deposition, p. 229: 21 – 23.

- Q. They all [four hypothetical label claims] change...at the same time.... There's a demarcation in time where now the old label had four claims on it including the heart check claim; the new label has one claim on it, which...does not include the [heart] check claim.
- A. Right.
- Q. How do you perform your before and after analysis in that situation?
- A. Yeah, that would be one where you might have to use alternative methods. Again, if you're not able to distinguish a clear demarcation in time when just that [the Challenged Claim] changed, or a way to control for those other factors that changed at the same time, then you would be confounding them. 101
- 66. Because Dr. May has not identified the explanatory variables he will consider including in his incremental sales regression and because he has not shown that there is a publicly available or other source for these data, he has failed to demonstrate that his incremental sales regression approach can be implemented in this case.
- 67. The incremental sales regression approach may also not be applicable in this case because, as discussed in Section IV.E.1 above, it may not be possible to determine precisely when the new labels appeared on store shelves. As noted by Dr. May at his deposition, to accurately measure damages using the approach, it must be possible to clearly and accurately distinguish between the before and after periods.
 - Q: You said there were a couple of methods. What other methods besides the hedonic regression?

. . .

A. Well, I talk a little bit about doing the before and after on just the revenues type of regression. *If you had a clear demarcation of when the labels changed*, and that would be another way of getting

 $^{^{101}}$ May Deposition, p. 143: 10 - 25.

at how that claim had changed that and hence, the value associated with that. 102

- 68. Finally, the incremental sales regression approach cannot be used to calculate damages for products that always had the Challenged Claim on their labels because there are no before and after periods for such products. I understand that in this case 13 of the 26 Challenged Products always had the Challenged Claim on their labels and thus the incremental sales regression approach that Dr. May described cannot be used to calculate damages. These 13 products include the 100% Whole Wheat Challenged Products and the Added Coloring Challenged Products.
 - 2. Contrary to Dr. May's assertion, the product labeling characteristic approach and the incremental sales regression approach are not "functionally equivalent"
- 69. Dr. May's claim that both the product labeling characteristic approach and the incremental sales approach should lead to similar estimates of damages¹⁰³ is unsupported and incorrect as a matter of economic principles. A Challenged Claim, to the extent it has any impact at all, may have two effects: (1) increase sales price and (2) increase quantity sold.¹⁰⁴ Both increases contribute to the total incremental revenue. The product labeling characteristic approach calculates the price increase, if any, due to the Challenged Claim, and then multiplies this by the quantity of units sold. The incremental sales methodology (assuming Dr. May uses quantity of units sold as the dependent variable) calculates the quantity increase, if any, due to the

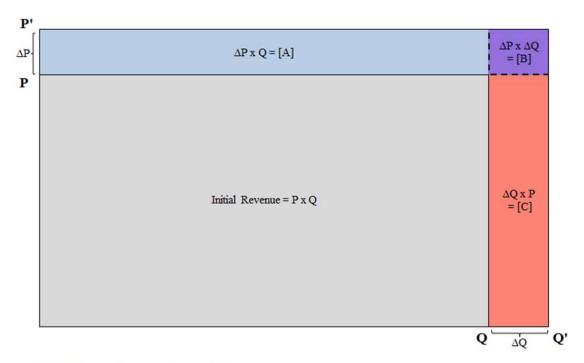
¹⁰² May Deposition, p. 139: 13 – 22. Emphasis added.

¹⁰³ May Declaration, ¶ 33.

¹⁰⁴ In fact, Challenged Claims may have negative impacts on either price or quantity, or both. This possibility means that damages calculated using a measure of either price changes alone (*i.e.*, hedonic regression) or quantity changes alone (*i.e.*, incremental sales regression using unit sales as the dependent variable) may overstate damages. Dr. May does not explain how he would test for, or address, such a situation.

- Challenged Claim and then multiplies this value by price. Functionally, the two methodologies yield estimates of two very different things. Consequently, there is no reason to believe that the two approaches would lead to similar estimates of damages.
- 70. To illustrate, consider the figure below. Assume, in arguendo, that price increases from P to P' and quantity increases from Q to Q' because of the introduction of a Challenged Claim. The grey rectangle then denotes initial revenue (price times quantity) and the larger rectangle (consisting of the grey, blue, red and purple regions) denotes final revenue (new price times new quantity). The incremental revenue is the sum of the blue, red and purple regions (denoted as A, C and B respectively). However, the product labeling characteristic approach focuses on the price increase and captures only the blue and purple regions (A and B), whereas the incremental sales approach focuses on quantity increase and captures only the red and purple regions (C and B). Clearly, these approaches estimate different things. Note that even if in the incremental sales methodology Dr. May were to use revenue (sales in dollars) as the dependent variable, he would capture the total incremental revenue namely blue, red and purple regions (A,C and B), which is still different from the damages estimated through the product labeling characteristics approach, namely blue and purple regions only (A and B).

Figure 1



- [A] + [B] Increase in revenue due to price increase
- [C] + [B] Increase in revenue due to quantity increase
- Final revenue, P' x Q', is represented by the area of the box formed by the Initial Revenue and regions [A], [B], and [C]
 - 3. The incremental sales approach does not produce a measure of harm to consumers
- 71. Dr. May claims that the incremental sales approach calculates "the difference in value between what class members paid and what they received," but he has not articulated anywhere in his declaration or deposition testimony the economic connection between incremental sales/revenue and the harm to consumers. If the incremental sales approach were indeed "functionally equivalent" to the hedonic regression approach, then perhaps one could argue that the incremental sales approach shares the connections that the hedonic regression approach has with "the

 $^{^{105}}$ May Declaration, ¶ 17.

difference in value between what class members paid and what they received."¹⁰⁶ But as shown above, this functional equivalence does not exist. Therefore, Dr. May has not shown any connection, either economically or algebraically, between incremental sales and the harm that consumers allegedly suffered.

- H. There Is No Economic Basis For Dr. May's Claim That Any Price Effect Measured By His Regressions "Would Not Vary From One Consumer To The Next"
- 72. Dr. May appears to claim that any price effect from the Challenged Claims "would not vary from one consumer to the next" without any supporting evidence. His claim is merely an artifact of the regression that he proposes, which assumes, but does not prove, that any price effects are common to all members of the class. By construction, the coefficient estimated using regression analysis measures average price effects, and Dr. May has provided no assurances that his proposed methodology would be capable of discerning whether any impacts are uniform across Class Members. To take a simple example, if one consumer paid 10 percent more than he would have paid absent the Challenged Claim and another consumer paid 5 percent more, then the regression analysis would measure an average effect of 7.5 percent increase in price. In essence, the mere use of a regression analysis assumes that price impacts are uniform across Class Members, thereby masking possible heterogeneity in price impacts. In the previous example, even if the second consumer did not pay a higher price, the regression estimate would be 5 percent, indicating that both consumers suffered damages whereas in reality only one did.

¹⁰⁶ May Declaration, ¶ 17.

¹⁰⁷ May Declaration, ¶ 48.

- 73. There are plausible reasons to expect the price effects to vary from one consumer to the next. For example, over the duration of the proposed class period (from March 18, 2009 to the present), the price effects could vary from year to year. Public perception of health benefits and nutrients in food products has likely changed from 2009 to 2014. To illustrate, according to the Food and Health Survey, in 2012, 67% of consumers considered whether the product contain whole grains when making a purchase decision¹⁰⁸ whereas in 2014 only 62% did so. ¹⁰⁹ Similarly, in 2012, 26% of consumers bought foods and beverages advertised as "organic" on the label on a regular basis, 110 whereas in 2014, 32% did so. 111 With changing public perception, consumers' willingness to pay for these attributes has likely changed as well. Because producers and retailers generally price according to consumers' willingness to pay, the price premiums for the Challenged Claims, if any, may vary over the class period. This could lead to, for example, a smaller price effect in 2009 and a larger price effect in 2014 (or vice versa). Therefore, price effects, if any, on consumers who bought the Challenged Products in 2009 may well be different from the price effects on consumers who bought in 2014.
- 74. The wide variation in prices of the Challenged Products across various dimensions discussed above and further detailed in Section IV.I suggests that the dollar and/or

¹⁰⁸ 2012 Food & Health Survey: Consumer Attitudes Toward Food Safety, Nutrition & Health. International Food Information Council Foundation, p. 54.

¹⁰⁹ 2014 Food & Health Survey: The Pulse of America's Diet: From Beliefs to Behaviors. International Food Information Council Foundation, p. 38.

¹¹⁰ 2012 Food & Health Survey: Consumer Attitudes Toward Food Safety, Nutrition & Health. International Food Information Council Foundation, p. 102.

¹¹¹ 2014 Food & Health Survey: The Pulse of America's Diet: From Beliefs to Behaviors. International Food Information Council Foundation, p. 68.

percentage impacts, if any, may also vary. The Challenged Products were distributed at different times, via different channels and different retailers. Manufacturer coupons, retail store club discounts, and in-store promotions could also affect prices faced by individuals. Further, Bimbo contracts with different distributors in different sales areas. The distributors buy the products from Bimbo and sell them to their customers (retailers). Each of these transactions has the potential to influence the price that consumers ultimately pay and consequently the dollar or percentage impacts (if any) of the Challenged Claims.

I. Contrary To Dr. May's Assertion, The Weighted Average Prices Of The Challenged Products Are Not Common To Members Of The Class

75. Dr. May's claim that the "weighted average price is common to the class of purchasers" is misleading and unsupported as a matter of basic statistical principles. Granted, the weighted average price is a single number so it must trivially be the same to the class, but it would be incorrect as a matter of statistics to interpret "common to the class of purchasers" to mean Class Members all paid this weighted average price. In fact, the prices paid for the Challenged Products varied widely across many dimensions. As Dr. May himself recognizes, "differences in retail prices may exist across different stores in any given time period." The Challenged Products have been sold through multiple channels (e.g., grocery stores, drug stores and mass merchandisers), and prices can vary significantly across those channels. 116

^{112 &}quot;How Does it Work?" (http://www.bbuio.com/how_work.cfm) (Accessed March 19, 2015).

^{113 &}quot;How Do I Get My Income?" (http://www.bbuio.com/how_income.cfm) (Accessed March 31, 2015).

¹¹⁴ May Declaration, ¶ 27.

¹¹⁵ May Declaration, ¶ 27.

¹¹⁶ BBUSA ANG000001.xlsx.

For example, according to IRI, the average unit price for Sara Lee Soft & Smooth 100% Whole Wheat Bread¹¹⁷ at mass merchandiser KMART California stores was \$3.98 from 2009 to early 2010.¹¹⁸ By contrast, the average unit price at Albertson's California grocery store locations during the same period was \$2.83, about \$1.15 less.¹¹⁹ During the period from early 2011 to 2012,¹²⁰ the average price for Oroweat Sweet Hawaiian Bread¹²¹ at Target's San Diego stores was \$3.06, while at Target's Sacramento stores it was \$4.28, a \$1.22 difference.¹²²

- 76. Other factors may also affect prices. Over time, the costs of production have changed, resulting in different prices. Different prices can also arise from promotional discounts that retailers often offer to all shoppers, as well as discounts offered to just members of a discount club. Coupons and other manufacturer discounts (I understand that Bimbo issued manufacturer coupons) can also affect the prices consumers actually pay. While IRI data may be used to account for the price differences arising from retailer discounts, it does not capture the price differences arising from manufacturer coupons. 123
- 77. Using weighted average price to calculate damages to Class Members will overcompensate some and undercompensate others. In the "Full Purchase Price Restitution" section of his declaration, Dr. May proposes restitution as "the return of

¹¹⁷ UPC 7294560154.

¹¹⁸ BBUSA_ANG000004.xlsx; Data reflect 52 weeks ending 3/28/2010.

¹¹⁹ BBUSA ANG000004.xlsx: Data reflect 52 weeks ending 3/28/2010.

¹²⁰ BBUSA_ANG000004.xlsx; Data reflect 52 weeks ending 3/11/2012.

¹²¹ UPC 7313000633.

¹²² Non-promotional prices are not available for retailers in California other than Albertson's.

¹²³ Analysis Group personnel contacted IRI about the retail bread prices provided through IRI's subscriptions, and confirmed that they do reflect retailer promotions and discounts but do not reflect manufacturer coupons.

the weighted average purchase price to the Plaintiff and members of the class."¹²⁴ However, by definition, some consumers paid more than the weighted average price and some paid less. For example, if 5 consumers paid \$3.98 at KMART and 10 consumers paid \$2.83 at Albertson's, then Dr. May's proposal would return \$3.21, the weighted average price, to each of these 15 consumers. So the consumers who bought at KMART would be undercompensated, and those who bought at Albertson's would be overcompensated. Dr. May himself acknowledges that using the weighted average price would lead to some "reallocation."¹²⁵ The use of weighted average price in the product labeling characteristic approach¹²⁶ also has the same issue, for essentially the same reason.

78. Thus, sound statistical and economic principles require determining the purchase prices paid by each individual Class Member to calculate the appropriate amount of restitution. Without knowing the prices paid by each individual, one must estimate those prices either using weighted average price as Dr. May proposes or through some other means. Any of these estimation approaches, however, is necessarily inexact and will result in overcompensating some consumers while undercompensating others. Therefore, individual inquiry is necessary to determine purchase prices paid by each individual Class Member.

¹²⁴ May Declaration, ¶ 19.

 $^{^{125}}$ May Deposition, p. 107: 21 - 25.

¹²⁶ May Declaration, ¶ 27.

- J. Dr. May Has Proposed No Method Of Allocating Total Damages Under Any Of His Methodologies To Specific Class Members
- 79. Dr. May's proposed methodologies purport to estimate total damages for the entire class, but not *each member's* damages. In his deposition testimony, Dr. May concedes that his goal is merely to "calculate a number that's going to be common to everyone... that can be used to distribute that in any way the court sees fit...." He is uncertain, and his methods do not answer the question of, how much money should be returned to each consumer in order to compensate them for the alleged harm they suffered: "[I]t could be just through the average price... or it could be per the specific price." Nowhere has Dr. May articulated a method to calculate individual Class Member's damages.
- K. Dr. May Has Failed To Provide Even The Most Rudimentary Empirical Analysis To Support The Fundamental Notion Of The Plaintiffs' Damages Theory That The Allegedly False Claims Are Associated With Any Price Premium
- 80. Dr. May has neither examined any data¹²⁹ nor undertaken even the most preliminary empirical analysis to determine if there is any support for Plaintiffs' fundamental theory that the Challenged Claims are associated with any price premium. The academic studies cited by Dr. May do not address the labelling claims at issue in this litigation and do not support, as a matter of economic principle, the hypothesis that the Challenged Claims increase prices of the relevant products. In fact, one study

 $^{^{127}}$ May Deposition, p. 107: 5 – 10.

 $^{^{128}}$ May Deposition, p. 107: 21 – 25.

¹²⁹ May Deposition, p. 38: 2.

cited by Dr. May¹³⁰ shows that some label claims such as "whole grain" and "no salt" are associated with price *discounts*, indicating that, while some consumers view these claims as healthful, others may perceive them to indicate negative effects on the taste or texture of the product. In other words, Dr. May has not provided any evidence that consumers were harmed by the Challenged Claims.

I declare under penalty of perjury under the laws of the state of California that the foregoing is true and correct. Signed on the 6th day of April, 2015.

Bruce A. Strombom

¹³⁰ "The value to consumers of health labeling statements on breakfast foods and cereals", by Mary K. Muth, Chen Zhen, Justin Taylor, Sheryl Cates, Katherine Kosa, David Zorn, and Conrad Choiniere, p. 15.